REMARKS

The nonfinal Office Action mailed on September 19, 2007 and the comments therein have been carefully considered. Applicants appreciate the Examiner's consideration of Applicants' prior remarks and acknowledgement of allowable subject matter.

I. Status of Claims

Applicants especially appreciate the Examiner's careful review of the assay and the mistake in the description of the antibodies used in the claimed assay. Applicants have amended claim 18 to appropriately identify the antibodies as those having the same epitope as mAb 528 or mAb R.1 as described in the specification, for example on page 33.

Regarding the 35 USC §112 written description and enablement rejection based on the availability of mAb 528 and mAb R.1, Applicants have attached current product listings for both antibodies from commercial resources (Attachment I). Applicants submit that both antibodies are commercially available from several sources, including Santa Cruz and Lab Vision Corporation.

Finally, Applicants have amended claim 18 such that "soluble epidermal growth factor receptor" is used consistently throughout the claims. As described in the specification and as known in the art, epidermal growth factor receptor (EGFR) is also known as ErbB1. Applicants submit that the amendment does not add new matter or change the context of the claims but simply makes the terminology consistent throughout the claims.

II. Conclusion

Applicants respectfully submit that the claims, as amended, are in a condition for allowance. Accordingly, reconsideration and allowance of the claims are respectfully requested.

8

Serial No. 09/676,380

Amdt. dated December 19, 2007

Reply to Office Action of September 19, 2007

In addition, Applicants respectfully request notice of entry of the substitute specification filed

June 25, 2007.

The Commissioner is hereby authorized to charge Deposit Account No. 03-2026 for any

fees associated with this amendment or credit any overpayments.

Applicants would appreciate a telephone call to the undersigned attorney of record should

the Examiner have any questions or comments with respect to this response for purposes of

efficiently resolving same.

Respectfully submitted,

By

Christy G. Rothwell, Ph.D.

PTO Registration No. 55,936

Cohen & Grigsby, P.C.

11 Stanwix Street, 15th Floor

Pittsburgh, PA 15222

(412) 297-4705

9

Attachment I

current product listings for mAb 528 and mAb R.1 from commercial resources

	santa cruz	z biotechnology, inc.	Log In (My Account	t । View Order	Wish List	Help? I Site Map	
® Santa Cruz				eş i			
	Prod	duct Block		14.5 mg			
HALLESERLEY			Welcome! 0 Items in	Cart			
13-o Plante to Spanishin	Search	Browse o	ur Catalog	nsonen in berken som i kellede de de in	Advance	ed Search	
	HOME	WHAT'S NEW?	SUPPORT C	OMPANY	SHOP		
	CONTACT	JS.					
	home » Memb	rane Receptors » EGFR Antibody / E	GFR Antibodies » EGFR (R-1): sc-101			
EGFR (R-1): sc-	101		Sea	rch Datasheet	Catalog #	Price Qty Wish	
mouse monoclor		-			sc-101	\$248 List	
cell surface dom-		otor GF receptor of human origin b	v IP, IF and FCM		sc-101 AC	\$297	
antagonist of EG	F stimulated red	ceptor tyrosine kinase activity			sc-101 AF405	\$310	
 agarose conjugate for IP studies, sc-101 AC, 500 μg/0.25 ml agarose fluorescein conjugate for FCM, sc-101 FITC, 100 tests 							
• Alexa Fluor® 405 (sc-101 AF405), Alexa Fluor® 488 (sc-101 AF488) and Alexa Fluor® 647 (sc-101 AF647) conjugates for FCM or immunofluorescence; 100 µg/2 ml						\$310	
						\$310	
dditional EGFR Antibodies						\$278	
						Buy	
Product Citations						Set Currency	
Recommended S	upport Products	for:			U	S Dollars	
16 15	FON) Data ge to enlarge	
Landon Landon						GFR (R-1): sc-101.	
		+				nmunofluorescence stainin nethanol-fixed A-431	
iRNA Gene Sile	ncare	electrica e confligio escular e successa du con el Machine a cafa est avectoria sobrita lecertario de manera c Con contrata e confligio escular e successa de consensa e con consensa e con consensa e con consensa e con con		EMILOVINIS RATIO IL MILISTININI PITTATAININI PITA	A A		
GFR (R-1): sc-10	1 is suitable for urchase siRNA of this page.	use as a control antibody for t	cts, please use orde	ering module	12.53		
PRIMITE I NAME	catalog # sc-29301	UNIT PRICE 50-100 transfections \$241	QTY Buy siRNAs		Download D	atacheet	
		TO AND GOILD GETT	Paraliza Gira		Download Datasheet Get Adobe Acrobat Reader		
EGFR siRNA (h)		50-100 transfections \$241	Riv Ad	d to Wishlist	acc nadac i	ACIODAL NEBUCI	
EGFR siRNA (h)	sc-44340	50-100 transfections \$241 Currency US Dollars	Buy Ad G0	of to Wishlist®	ace nadde i	ACIODAL NEBGEI	

See how others have used EGFR (R-1) antibody: sc-101 and or EGFR (R-1) antibody conjugates.

displaying 1 - 5 of 9 results : < next 5 citations >

Kleiner S $et\ al.\ 2007$. Induction of uPA gene expression by the blockage of E-cadherin via Src- and Shc-dependent Erk signaling. FEBS J. 274(1): 227-240. View PubMed Entry

Lund CV *et al.* 2005. Zinc finger transcription factors designed for bispecific coregulation of ErbB2 and ErbB3 receptors: insights into ErbB receptor biology. Mol. Cell. Biol. 25(20): 9082-9091. View PubMed Entry

He, Y.Y. *et al.* 2003. Epidermal growth factor receptor down-regulation induced by UVA in human keratinocytes does not require the receptor kinase activity. J. Biol. Chem. 278: 42457-42465. View PubMed Entry

Hanke, S. et al. 2001. Cross talk between beta-adrenergic and bradykinin B(2) receptors results in cooperative regulation of cyclic AMP accumulation and mitogen-activated protein kinase activity. Mol. Cell. Biol. 21: 8452-8460. View PubMed Entry

Arcaro, A. et al. 2000. Class II Phosphoinositide 3-Kinases Are Downstream Targets of Activated Polypeptide Growth Factor Receptors. Mol. Cell. Biol. 20: 3817-3830. View PubMed Entry

Alexa Fluor® is a trademark of Molecular Probes Inc., OR., USA

Copyright ©, 2006-2007, Santa Cruz Biotechnology, Inc. All Rights Reserved. LEGAL

(Ē)	santa cru	z biotechnology,	ing. Log I	n i My Account i View Orde	er ၊ Wish List ၊ Help? I Site Map		
SANTA CRUZ	Product Block Welcome! O Items in Cart						
The flower to the which	Search	Br	owse our Cata	log	Advanced Search		
	HOME	P-254.1	SUPPOR		SHOP		
EGFR (528): sc-1	a a	rane Receptors » EGFR An	tibody / EGFR Anti	bodies » EGFR (528): sc-120 Search Datasheet	Catalog # Price Oty Wish		
 mouse monoclona cell surface epitop recommended for inhibits binding of fluorescein (sc-12) agarose conjugate 	Catalog # Price Qty Wish sc-120 \$248						
Additional EGFR Antib	odies				Buy Add		
Product Citations Recommended Sup	port Products	for:			US Dollars EGFR (528) Data Click on image to enlarge EGFR (528) PE: sc-120 PE FCI analysis of EGF-induced A431		
	is suitable for chase siRNA			wing siRNAs. NOTE! Use ase use ordering module	EGFR siRNA (h): sc-29301 Immunofluorescence staining of melhanol-fixed, control HeLa		
PRODUCT NAME	CATALOG #		PRICE QTY	Buy siRNAs	Download Datasheet Get Adobe Acrobat Reader		
EGFR siRNA (h) EGFR siRNA (h2)	sc-44340	50-100 transfections 50-100 transfections	or comment of our productions	Buy Add to Wishlist Buy Add to Wishlist			
eiRNA Support Products	Set	Currency US Dollars	\$241 (60)	town in the second second			

EGFR (528) Product Citations

See how others have used EGFR (528) antibody: sc-120 and or EGFR (528) antibody conjugates.

displaying 1 - 5 of 40 results: < next 5 citations >

Ning, Y. et al. 2007. Activated epidermal growth factor receptor induces integrin alpha2 internalization via caveolae/raft-dependent endocytic pathway. J. Biol. Chem. 282: 6380-6387. View PubMed Entry

Stern, K.A. *et al.* 2007. Epidermal Growth Factor Receptor Fate Is Controlled by Hrs Tyrosine Phosphorylation Sites That Regulate Hrs Degradation. Mol. Cell. Biol. 27(3): 888-898. View PubMed Entry

Choi, S.H. et al. 2007. EGF-independent activation of cell-surface EGF receptors harboring mutations found in gefitinib-sensitive lung cancer. Oncogene. 26: 1567–1576. View PubMed Entry

Salonen, T. et al. 2006. Inhibition of classical PKC isoenzymes downregulates STAT1 activation and iNOS expression in LPS-treated murine J774 macrophages. Br J Pharmacol. 147: 790-799. View PubMed Entry

Johannessen LE et al. 2006. Activation of the epidermal growth factor (EGF) receptor induces formation of EGF receptor- and Grb2-containing clathrin-coated pits. Mol. Cell. Biol. 26(2):

389-401. View PubMed Entry

Copyright ©, 2006-2007, Santa Cruz Biotechnology, Inc. All Rights Reserved. LEGAL



Part of Thermo



ORDER PRODUCTS

Fisher Scientific

Order products with the click of a mouse!

| 1934 | | 1935 | | | |
| order information
We are closed from
Dec. 24th-Dec. 28th

Search: Go + Account Login > View Shopping Cart

Welcome to Lab Vision Corporation, your premier source for unrivaled immunohistochemistry instruments, reagents, and cutting-edge life science products

Antibodies

2007 PUBLICATIONS

NSH abstract:
DEVELOPMENT OF A
ONE-STEP POLYMER
BASED DOUBLE STAINING
SYSTEM FOR
IMMUNOHISTOCHEMISTRY

NEWS

Lab Vision

receives FDA

anti-Estrogen

Receptor.SP1

Read more....

Ultravision ONE - the latest biotin-free IHC detection system

available from Lab

PTMTM: an integrated solution for any

Fluorescence <u>LEDs</u> Microscope & Module

Autostainer for dewaxing

Vision

Read more...

and HIER

510(k) approval

for the RabMAb

Epidermal Growth Factor Receptor / EGFR Ab-1

Click here to view RUO datasheet

Compare different antibodies against Epidermal Growth Factor Receptor.

Mouse Monoclonal Antibody

Description: EGFR is type I receptor tyrosine kinase with sequence homology to erbB-1, -2, -3 -4 or HER-1, -2, -3 -4. It binds to Epidermal Growth Factor (EGF), Transforming Growth Factor-a (TGF-a), Heparin-binding EGF (HB-EGF), amphiregulin, betacellulin and epiregulin. EGFR is overexpressed in tumors of breast, brain, bladder, lung, gastric, head & neck, esophagus, cervix, vulva, ovary, and endometrium. It is predominantly present in squamous cell carcinomas.

Comments: Ab-1 blocks EGF/TGFalpha induced activation of EGFR. It also blocks tumor growth in vivo. It has no effect on tyrosine kinase activity of the receptor. It inhibits the binding of Ab-2.

Epitope: Extracellular domain

Clone Designation: 528

Immunogen: Purified EGFR from A431 cells.

Positive Control: A431 cells.

Molecular Weight: 170kDa (wild type) and 145kDa (vIII variant)

Species reactivity:Human and Dog. Does not react with mouse & rat. Others-not known.

Cellular Localization: Cell membrane

Please select from the items below to add to your shopping cart:

Cat. # MS-268 - P1

(0.5ml at 200ug/ml) (Purified Ab with BSA and Azide)

Cat. # MS-268 - B

(1.0ml at 200ug/ml) (Biotin labeled Ab with BSA and Azide)

Cat. # MS-268 - P0 (0.1ml at 200ug/ml) (Purified Ab with BSA and Azide) Native IP

<u>kDa</u>

202■ -EGFR

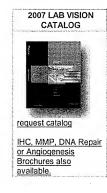
133
71
1P / Western

Human Cells-1

1P #MS-268

WB:#MS-312

FEATURED PRODUCT
Albumin, Polyclonal
FITC Labeled
Rabbit Polyclonal
Antibody



1 of 2

Cat. # MS-268 - P (1.0ml at 200ug/ml) (Purified Ab with BSA and Azide) Cat. # MS-268 - B1 (0.5ml at 200ug/ml) (Biotin labeled Ab with BSA and Azide) Cat. # MS-268 - B0 (0.1ml at 200ug/ml) (Biotin labeled Ab with BSA and Azide) Cat. # MS-268 - PABX (0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide) Cat. # MS-268 - P1ABX (0.1ml at 1.0mg/ml) (Purified Ab without BSA and Azide) Add to My Selections

Copyright © 2007 Lab Vision Corp , part of <u>Thermo Fisher Scientific Inc.</u>
47777 Warm Springs Blvd Fremont, CA 94539
Main: 510-991-2800 / 800-828-1628 Fax: 510-991-2826
Email: sales@labvision com



Part of Thermo



Fisher Scientific

ORDER PRODUCTS

Home Products Support About Us Distributors Contact

Search: Go Account Login View Shopping Cart

Welcome to **Lab Vision Corporation**, your premier source for unrivaled immunohistochemistry instruments, reagents, and cutting-edge life science products

Antibodies

2007 PUBLICATIONS

NSH abstract
DEVELOPMENT OF A
ONE-STEP POLYMER
BASED DOUBLE STAINING
SYSTEM FOR
IMMUNOHISTOCHEMISTRY

NEWS

Lab Vision

receives FDA 510(k) approval

anti-Estrogen

Receptor, SP1

Read more....

Ultravision ONE - the latest biotin-free IHC detection system

available from Lab

Read more....

PTMTM: an integrated

solution for any Autostainer for dewaxing

Fluorescence <u>LEDs</u> Microscope & Module

and HIER

for the RabMAb

Epidermal Growth Factor Receptor / EGFR Ab-3

Click here to view RUO datasheet

Compare different antibodies against Epidermal Growth Factor Receptor.

Mouse Monoclonal Antibody

Description: EGFR is type I receptor tyrosine kinase with sequence homology to erbB-1, -2, -3 -4 or HER-1, -2, -3 -4. It binds to Epidermal Growth Factor (EGF), Transforming Growth Factor-a (TGF-a), Heparin-binding EGF (HB-EGF), amphiregulin, betacellulin and epiregulin. EGFR is overexpressed in tumors of breast, brain, bladder, lung, gastric, head & neck, esophagus, cervix, vulva, ovary, and endometrium. It is predominantly present in squamous cell carcinomas.

Comments: Ab-3 does not interfere with the binding of EGF to EGFR. It is particularly well suited for immunoprecipitating the unoccupied as well as the occupied EGFR.

Epitope: aa 6-273

Clone Designation: EGFR.1

Immunogen: A431 human epidermoid cells.

Positive Control:A431 cells express only the intact and not the vIII variant of EGFR. HC2 20 d2 cells express the vIII variant. In normal breast, ducts and lobules show diffuse cytoplasmic staining.

Molecular Weight: 170kDa (wild type)

Species reactivity:Human and Horse. Does not react with mouse. Others-not known.

Cellular Localization: Cell membrane

VISA 😂 🗖 🚅

Please select from the items below to add to your shopping cart:

Cat. # MS-311 - P0 (0.1ml at 200ug/ml)

(Purified Ab with BSA and Azide)

Cat. # MS-311 - B

(1.0ml at 200ug/ml) (Biotin labeled Ab with BSA and Azide) Native IP

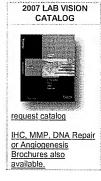
\$Da

202EGFR

13371
JP / Western
Human Cells-4
IP: #MS-311
W8: #MS-312

FEATURED PRODUCT
MyoD1 Ab-2
Mouse Monocional
Antibody

more info



Cat. # MS-311 - B1 (0.5ml at 200ug/ml) (Biotin labeled Ab with BSA and Azide) Cat. # MS-311 - B0 (0.1ml at 200ug/ml) (Biotin labeled Ab with BSA and Azide) Cat. # MS-311 - PABX (0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide) Cat. # MS-311 - P1ABX (0.1ml at 1.0mg/ml) (Purified Ab without BSA and Azide) Cat. # MS-311 - P (1.0ml at 200ug/ml) (Purified Ab with BSA and Azide) Cat. # MS-311 - P1 (0.5ml at 200ug/ml) (Purified Ab with BSA and Azide) Add to My Selections

Copyright © 2007 Lab Vision Corp., part of <u>Thermo Fisher Scientific Inc.</u>
47777 Warm Springs Blvd Fremont, CA 94539
Main: 510-991-2800 / 800-828-1628 Fax: 510-991-2826
Email: sales@labvision corm